Setting up your network

This is the first in a three part series on setting up your computer network. It's based on a windows-centric approach but MACs can easily be added to an existing Windows workgroup or domain. This first article will address a business that sees rapid growth in the future, the second will address a small business that will remain around 25 users or so, and the third for your average home network.

Let's assume you currently have 25 users on your network and things are getting a bit out of control and will only get worse as you plan to be up to 100 – 200 users over the next 2 years. There are two things that need to happen immediately; one is get a decent router and the other is to plan and create a domain topology. As you add more and more users you will start to notice some real bottlenecks in accessing the internet and things will appear to just freeze on occasion. This is your router. Your typical $100 - $200 router just isn't going to cut it. You really need something that handles the bandwidth and breadth. You're looking at $800 - $2,000 depending on your needs and it's necessary. For the size business we are talking about several good alternatives are Cisco, Calyptix, PFsense, and Sonicwall.

Those products offer the bandwidth, security, and remote connection features just not available on consumer grade routers. They come with ipsec VPN capability built in, web filtering and granular control you will need.

The next step is network design. You've outgrown a workgroup so a domain is what you need. You will need at least one server to act as Domain Controller and another for storage. You might be able to use just one high performance machine for this to save some money but two would be preferable. One dedicated just for storage and if network traffic is intense possibly a third. A domain is not magic and with good upfront design is an excellent investment.

As for workstations Win7 pro or Win10 will work fine, home edition will not and you can forget about Windows 8.